

# BUILDING INSIGHT LIGHTING



## Does a lighting upgrade make sense for your facility?

### *Five questions you should be asking yourself*

By: Justin R. Cross, Lighting Engineer, Gardiner

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Whether you've already seriously considered upgrading your facility's lighting or have just been shopping for light bulbs for your home, it's impossible to ignore the technology shift to LED. The cost of high-efficiency LED technology has come down in recent years, but what does that mean for your building in 2016? Should you be considering upgrading to LED lighting now?

I wish there were an easy answer, but like most facilities-project decisions, it depends on a number of factors. Here are some things to consider if you want to assess whether it's worth investigating an upgrade now...or even to give you a rough idea of when you'll want to plan for an inevitable upgrade down the road.

#### FIVE QUESTIONS TO CONSIDER

##### 1. What is the age and type of lights at your facility?

One of the biggest factors in deciding when to act will be what you have now. If you're still clinging to your T12 lights, that's a bit of a different discussion than if you did a more recent conversion to T5 lamps and have an integrated control system and sensors to manage your lighting usage. Obviously, the older your existing lighting, the bigger priority and savings opportunity you have on your hands.

#### **\$** DRAMATIC ENERGY REDUCTION FROM LED

*LED lighting can reduce energy consumption by anywhere from 60-75% from T8 Lamps and over 95% compared to incandescent bulbs.*

## 2. What is the quantity of lights and fixtures at your facility?

The next thing you'll want to consider is the full scope of your lighting situation...specifically how many lights and fixtures you're dealing with. That will impact your potential savings on bulb replacement costs, as well as your energy savings potential. When talking about the impact of savings from a lighting project, everything related multiplies by the quantity of lights at your facility.

### **\$ REAL SAVINGS**

*A 150,000 sq ft Commercial property with 910 interior and exterior fixtures was able to save over **\$85,000\*** annually by upgrading to LED with controls. (\*Based on an Electric rate of \$0.11 per kWh, includes energy & maintenance savings.)*

## 3. What is your lighting usage profile (# of operating hours)?

What is even more important than how many bulbs you have is how heavily you're operating them. Are you an 8am to 5pm operation with little to no after-hours usage...or do you run a 24/7 facility? Both T8 and T5 bulbs have a life expectancy of around 36,000 hours at a 12 hour per day burn time. The heavier your usage, the stronger the case for considering an upgrade, given the increased ongoing bulb-replacement costs and greater energy savings.

### **\$ DOCUMENTED ENERGY REDUCTION PARTNER**

*Gardiner has documented saving clients throughout Northeast Ohio more than **73,000,000 kWh** and over **\$7,800,00** via energy reduction programs.*

## 4. What are you currently doing for lighting control?

Facility managers probably know better than most people that the efficiency of the bulbs themselves is only part of the battle. Utilizing simple time clock, photocell or motion sensor controls can turn lights on and off based on need. Larger facilities can directly integrate lighting into a building automation system to manage their lighting usage more comprehensively. When thinking about upgrading your lighting, control should be part of that discussion.

## 5. Are you eligible for utility incentives or other funding options?

Maybe the only thing more challenging for facility owners and managers than keeping up with ever-changing building technologies is keeping up with the funding and financing options available. Between utilities, government programs and private financing or shared savings options, a big factor in timing your lighting upgrade may be when it's most advantageous from a funding perspective. LED lighting can produce positive cash flow immediately from installation with the right financing.

### **\$ NUMEROUS FUNDING OPTIONS AVAILABLE**

*There may be a variety of funding and/or financing options available for energy projects in your facility. US Department of Energy programs like PACE (Property Assessed Clean Energy), for example, have provided funding to over **700 commercial buildings** totaling over **\$250 Million** in the past few years.*



Hopefully these few questions give you something to consider on your own, but we're here to help. Most people still think of us primarily for our HVAC expertise, but Gardiner has helped numerous clients throughout Northeast Ohio evaluate, fund and implement energy saving lighting projects. Contact your Gardiner representative today or (if you're viewing the electronic version of this article) click on the link below to request a facility lighting consultation.

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